

**MILLCREEK TOWNSHIP SEWER AUTHORITY**

MILLCREEK MUNICIPAL BUILDING  
3608 WEST 26TH STREET  
ERIE, PENNSYLVANIA 16506

Phone (814) 835-6721

Fax (814) 835-6615

June 14, 2004

Mr. Anthony C. Oprendek, Compliance Specialist  
Water Management  
PA Dept. of Environmental Protection  
230 Chestnut Street  
Meadville PA 16335-3481

RE: Kearsarge Area Sanitary Sewer Overflow

Dear Mr. Oprendek:

On May 21, 2004 the Millcreek Township Operations Superintendent used his best judgment to prevent the flooding of basements and opened the Kearsarge bypass for a period of 1 hour and 25 minutes, resulting in an estimated 75,000 gallons of sewage being discharged. An engineering report and chart has been attached for documentation. No other discharges occurred.

In accordance with the most recent COA, we have enclosed a check for \$2,500.00 made payable to the "Commonwealth of Pennsylvania Clean Water Fund".

Very truly yours,  
Millcreek Township Sewer Authority

By: \_\_\_\_\_

Cc: Authority Board  
Township Supervisors  
William Steff, S.T.S.A.



## CONSOER TOWNSEND ENVIRODYNE ENGINEERS, INC.

155 West 8th Street

June 14, 2004

Erie, Pennsylvania 16501

Mr. George Riedesel, P.E.  
 Millcreek Township Sewer Authority  
 3608 West 26<sup>th</sup> Street  
 Erie, PA 16506

Phone: (814) 453 4394

Fax: (814) 455 6596

This letter is to report on the overflow event that occurred at the Kearsarge pump station on May 21, 2004, beginning at 8:00 p.m. and finishing at 9:25 p.m., a total period of 1 hour and 25 minutes. At 8:00 p.m. Mr. Gary Snyder of the township maintenance personnel opened the overflow six full turns and observed that the wet well had surcharged above the second landing. Later observations indicated that it had surcharged to 1'3" above the second landing. At the time three pumps were operating and pumping at 2,800 gpm recorded or 3,400 corrected. Mr. Snyder had recorded the pump discharge pressures at 44 psi and the suction pressures at 6 psi. Once the bypass was opened, the discharge increased to 4,400 gpm corrected. We estimate based on the discharge pressures that approximately 1,000 gpm of that volume was being bypassed. The flow continued fairly constant (as the wet well began to drop) for a period of approximately 70 minutes at which time the flows began to decrease reaching 3,600 gpm of which 600 gpm was believed to be being bypassed. This lasted for approximately 15 minutes at which time the pumps began to slow as the wet well surcharge reached the operating level of the pump station. The overflow valve was then closed.

Once the overflow valve was closed, pumps #1 and #2 began to increase in speed to reach 100% but never reached the level that required #3 pump to come on. Flows from the station equaled 3,250 gpm corrected but the discharge pressure increased to 47 psi. Pumps continued to operate at 100% losing and gaining wet well capacity for a period of about 35 minutes or until 10:00 p.m. when they once again began to reduce speed as the inflow began to drop.

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Mr. George Riedesel, P.E.  
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The total length of time for the bypass was 1 hour 25 minutes. It is estimated during that period that 283,000 gallons of waste were pumped forward to the Erie Wastewater Treatment Plant but that another 75,000 gallons was discharged to Walnut Creek. Total flows pumped during that period were 362,000 gallons. Total overflow volume as stated above was estimated at 75,000 gallons.

For your information the conceptual increase in flow capacity of the station's pumps to 4,500 gpm would have moved this entire overflow event forward to the Erie Wastewater Treatment Plant without the need to utilize the conceptualized overflow tank. The storm event had a peak intensity of about 0.2 inches per hour. It did follow an extended period of rainfall saturating the soil. We conclude that this storm's intensity did not reach the base storm event of .35 inches per hour. We had previously concluded that the base storm induced flow rates would equal 4,900 gpm. This storm's influent flow rate was estimated at 3,925 gpm during the period 8:10 p.m. to 8:50 p.m. (forty minutes). A copy of the flow chart for the overflow event is enclosed.

Very truly yours,

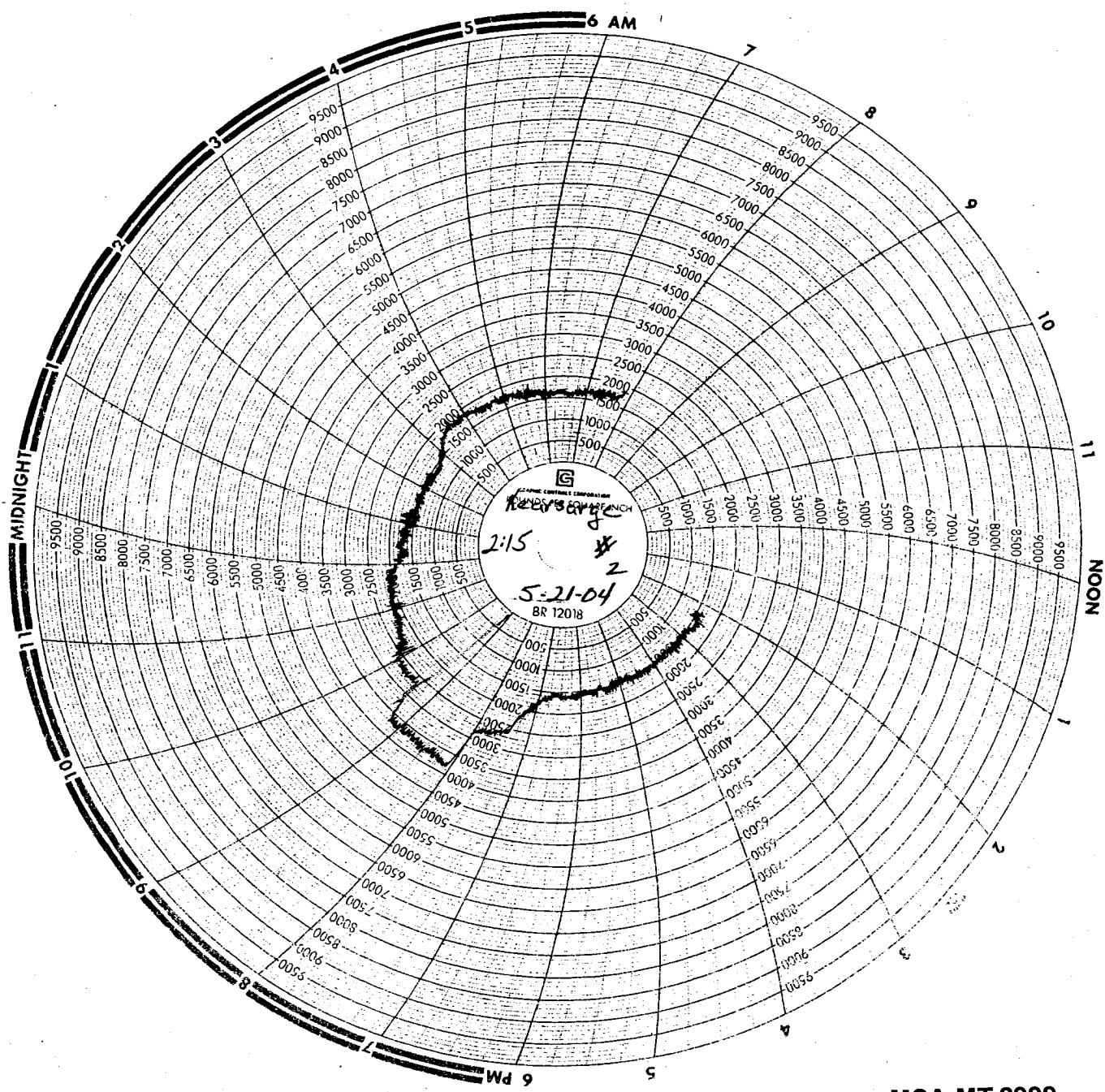
CONSOER TOWNSEND ENVIRODYNE ENGINEERS, INC.

Gerald C. Allender, P.E.  
Project Manager

GCA:lb

Enclosure

MSA-MT 2998



MSA-MT 2999